

Material Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Material Name	: White Spirit
Recommended Uses	: Industrial Solvent.
Other names	: LAWS TURPENTINE SUBSTITUTE
Product Code	: Q3312, Q3327
Supplier	Auschem (NSW) Pty Ltd 91 Newton Road Wetherill Park 2164 P.O. Box 6309 Wetherill Park 2164 NSW Australia ABN: 32 084 260 159
Telephone	: + 612 9756 5559
Fax	: + 612 9756 5558
Local Contact	
Telephone	: + 612 9756 5559
Fax	: + 612 9756 5558
Emergency Telephone Number	: 1800 127 406 (24 hours) / (International) +64 3 353 0199
Other Information	: ShellSol is a trademark owned by Shell Trademark Management B.V. and Shell Brands Inc. and used by affiliates of Royal Dutch Shell plc.

2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE. DANGEROUS GOODS.
Classified as hazardous according to the criteria of NOHSC, and as Dangerous Goods according to the Australian Dangerous Goods Code.

Symbol(s)	: Xn Harmful. N Dangerous for the environment.
R-phrase(s)	: R10 Flammable. R65 Harmful: may cause lung damage if swallowed. R66 Repeated exposure may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S23 Do not breathe vapour. S24 Avoid contact with skin. S61 Avoid release to the environment. Refer to special instructions/Safety data sheets. S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. S 2 Keep out of the reach of children.

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- Health Hazards** : Vapours may cause drowsiness and dizziness. May cause moderate irritation to skin. Repeated exposure may cause skin dryness or cracking. Harmful: may cause lung damage if swallowed. Possibility of organ or organ system damage from prolonged exposure; see Chapter 11 for details. Target organ(s): Auditory system. Central nervous system (CNS).
- Signs and Symptoms** : Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance. Other signs and symptoms of central nervous system (CNS) depression may include headache, nausea, and lack of coordination. Respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing, and/or difficulty breathing. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. Auditory system effects may include temporary hearing loss and/or ringing in the ears.
- Environmental Hazards** : Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
- SUSDP Schedule** : 5

3. COMPOSITION/INFORMATION ON INGREDIENTS

- CAS No.** : 64742-82-1
INDEX No. : 649-330-00-2
EINECS No. : 265-185-4

Hazardous Components

Chemical Name	CAS	EINECS	Symbol(s)	R-phrases(s)	Conc.
1,2,4-Trimethyl benzene	95-63-6	202-436-9	Xn, N	R10; R20; R36/37/38; R51/53	< 10.00 %W
1,3,5-Trimethyl benzene	108-67-8	203-604-4	Xi, N	R10; R37; R51/53	< 10.00 %W
Xylene, Mixed Isomers	1330-20-7	215-535-7	Xn	R10; R20/21; R38	< 10.00 %W

- Additional Information** : Refer to chapter 16 for full text of EC R-phrases.

4. FIRST AID MEASURES

- Inhalation** : Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.
- Skin Contact** : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.
- Eye Contact** : Flush eyes with water while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision, or swelling persist, transport to the nearest medical facility for additional treatment.
- Ingestion** : If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

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Advice to Physician : Causes central nervous system depression. Dermatitis may result from prolonged or repeated exposure. Potential for chemical pneumonitis. Consider: gastric lavage with protected airway, administration of activated charcoal.

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Specific Hazards : Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface water. The vapour is heavier than air, spreads along the ground and distant ignition is possible.

Extinguishing Media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Do not discharge extinguishing waters into the aquatic environment.

Unsuitable Extinguishing Media : Do not use water in a jet.

Protective Equipment for Firefighters : Wear full protective clothing and self-contained breathing apparatus.

Additional Advice : Keep adjacent containers cool by spraying with water.

Hazchem Code : 3[Y] - For fire fighting, use foam (alcohol resistant foam may be required). Risk of explosion. Breathing apparatus, firefighting gear and chemically impervious protective gloves should be worn. Prevent spillage from entering drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

Observe all relevant local and international regulations.

Protective measures : Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Material Safety Data Sheet. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.

Clean Up Methods : For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as

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- contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
- Additional Advice** : See Chapter 13 for information on disposal. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Vapour may form an explosive mixture with air.

7. HANDLING AND STORAGE

- General Precautions** : Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. On guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
- Handling** : Avoid contact with skin, eyes, and clothing. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (≤ 1 m/sec until fill pipe submerged to twice its diameter, then ≤ 7 m/sec). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations. Handle and open container with care in a well-ventilated area. Ventilate workplace in such a way that the Occupational Exposure Limit (OEL) is not exceeded. Do not empty into drains.
- Storage** : Must be stored in a diked (bunded) well-ventilated area, away from sunlight, ignition sources and other sources of heat. Bulk storage tanks should be diked (bunded). Keep away from aerosols, flammables, oxidizing agents, corrosives and from other flammable products which are not harmful or toxic to man or to the environment. Storage Temperature: Ambient.
- Product Transfer** : Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (≤ 1 m/sec until fill pipe submerged to twice its diameter, then ≤ 7 m/sec). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. If positive displacement pumps are used, these must be fitted with a non-integral pressure relief valve.
- Recommended Materials** : For containers, or container linings use mild steel, stainless steel. For container paints, use epoxy paint, zinc silicate paint.
- Unsuitable Materials** : Avoid prolonged contact with natural, butyl or nitrile rubbers.
- Container Advice** : Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.

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In the absence of occupational exposure standards for this product, it is recommended that the following are adopted.

Material	Source	Type	ppm	mg/m3	Notation
RCP Mineral spirits 150 - 200	HSPA OELs	TWA (8 h)		350 mg/m3	
Ethylbenzene	AU OEL	TWA	100 ppm	434 mg/m3	
	AU OEL	STEL	125 ppm	543 mg/m3	

Additional Information : Adequate ventilation to control airborne concentrations below the exposure guidelines/limits.

Biological Exposure Index (BEI) - See reference for full details

Material	Determinant	Sampling time	BEI	Reference
Xylene, Mixed Isomers	Methylhippuric acids in urine	End of shift	1.5 g/g creatinine	ACGIH (2003)

Respiratory Protection : If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for organic gases and vapours [boiling point >65 °C (149 °F)] meeting EN141. Where air-filtering respirators are unsuitable (e.g., airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.

Hand Protection : Longer term protection: Nitrile rubber gloves
Incidental contact/Splash protection: PVC or neoprene rubber gloves

Eye Protection : Chemical splash goggles (chemical monogoggles).

Protective Clothing : Chemical resistant gloves/gauntlets, boots, and apron. Skin protection not ordinarily required beyond standard issue work clothes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Colourless Liquid.
 Odour : Paraffinic
 pH : Not applicable.
 Boiling point : Typical 162 - 192 °C / 324 - 378 °F
 Melting / freezing point : Not applicable.
 Flash point : Typical 41 - 42 °C / 106 - 108 °F(Abel)
 Explosion / Flammability : 0.7 - 6.5 %(V)

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limits in air	
Auto-ignition temperature	: 296 °C / 565 °F(ASTM E-659) 245 °C / 473 °F(DIN 51794)
Vapour pressure	: Typical 370 Pa at 20 °C / 68 °F Typical 110 Pa at 0 °C / 32 °F Typical 1,800 Pa at 50 °C / 122 °F
Specific gravity	: Data not available.
Density	: Typical 783 kg/m ³ at 15 °C / 59 °F(ASTM D-4052)
Water solubility	: Insoluble.
Solubility in other solvents	: Aromatics Miscible. Aliphatics Miscible.
n-octanol/water partition coefficient (log Pow)	: 3.7 - 6.7
Kinematic viscosity	: Typical 1.08 mm ² /s at 25 °C / 77 °F
Vapour density (air=1)	: Data not available.
Electrical conductivity	: Typical 1 pS/m at 20 °C / 68 °F(ASTM D-4308)
Coefficient of expansion	: Typical 0.0008 / °C
Dielectric constant	: Typical 2.1 at 20 °C / 68 °F
Refractive index	: Typical 1.434 at 20 °C / 68 °F(ASTM D-1218)
Reaction with water	: Not applicable.
Saturated Vapour concentration (in air)	: 21 g/m ³ (estimated value(s))
Volatile organic carbon content	: 85 % (EC/1999/13)
Evaporation rate (nBuAc=1)	: 0.16 (ASTM D 3539, nBuAc=1) 80 (DIN 53170, di-ethyl ether=1)
Surface tension	: Typical 26.4 mN/m at 20 °C / 68 °F(ASTM D-971)
Molecular weight	: 140 g/mol

10. STABILITY AND REACTIVITY

Stability	: Stable under normal conditions of use.
Conditions to Avoid	: Avoid heat, sparks, open flames and other ignition sources.
Materials to Avoid	: Strong oxidising agents.
Hazardous Decomposition Products	: Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment	: Information given is based on product testing, and/or similar products, and/or components.
Acute Oral Toxicity	: Low toxicity: LD ₅₀ >2000 mg/kg , Rat Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Acute Dermal Toxicity	: Low toxicity: LD ₅₀ >2000 mg/kg , Rat
Acute Inhalation Toxicity	: Low toxicity: LC ₅₀ greater than near-saturated vapour concentration. / 4 hours, Rat High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Skin Irritation	: May cause moderate skin irritation (but insufficient to classify). Prolonged/repeated contact may cause defatting of the skin

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	which can lead to dermatitis.
Eye Irritation	: Essentially non-irritating to eyes.
Respiratory Irritation	: Inhalation of vapours or mists may cause irritation to the respiratory system.
Sensitisation	: Not a skin sensitiser.
Repeated Dose Toxicity	: Auditory system: prolonged and repeated exposures to high concentrations have resulted in hearing loss in rats. Solvent abuse and noise interaction in the work environment may cause hearing loss. Central nervous system: repeated exposure affects the nervous system. Kidney: caused kidney effects in male rats which are not considered relevant to humans
Mutagenicity	: Not expected to be mutagenic.
Carcinogenicity	: Limited evidence of carcinogenic effect. (Ethylbenzene)
Reproductive and Developmental Toxicity	: Causes foetotoxicity in animals at doses which are maternally toxic. Not expected to impair fertility.

12. ECOLOGICAL INFORMATION

Acute Toxicity	
Fish	: Harmful: 10 < LC/EC/IC50 <= 100 mg/l
Aquatic Invertebrates	: Harmful: 10 < LC/EC/IC50 <= 100 mg/l
Algae	: Toxic: 1 < LC/EC/IC50 <= 10 mg/l
Microorganisms	: Expected to be harmful: 10 < LC/EC/IC50 <= 100 mg/l
Mobility	: Floats on water.
Persistence/degradability	: Readily biodegradable. Oxidises rapidly by photo-chemical reactions in air.
Bioaccumulation	: Has the potential to bioaccumulate.

13. DISPOSAL CONSIDERATIONS

Material Disposal	: Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.
Container Disposal	: Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums. Send to drum recoverer or metal reclaimer.
Local Legislation	: Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

14. TRANSPORT INFORMATION

ADG	
UN number	1300
Proper shipping name	TURPENTINE SUBSTITUTE
Class	3
Packing group	III

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Hazchem Code 3[Y]

IMDGIdentification number UN 1300
Proper shipping name TURPENTINE SUBSTITUTE
Class / Division 3
Packing group III
Marine pollutant: Yes**IATA (Country variations may apply)**UN No. : 1300
Proper shipping name : Turpentine substitute
Class / Division : 3
Packing group : III

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

SUSDP Schedule	:	5
DSL	:	Listed.
INV (CN)	:	Listed.
TSCA	:	Listed.
EINECS	:	Listed. 265-185-4
KECI (KR)	:	Listed. KE-25620

Other Information : 94/69/EC (21st ATP). The benzene content of this product is less than 0.1%. Nota P applies. Classification and labelling as carcinogen (R45) is not required.

16. OTHER INFORMATION

R-phrases)

R10	Flammable.
R20	Harmful by inhalation.
R20/21	Harmful by inhalation and in contact with skin.
R36/37/38	Irritating to eyes, respiratory system and skin.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

MSDS Version Number : 2.**MSDS Effective Date** : 17.01.2007

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- MSDS Revisions** : A vertical bar (|) in the left margin indicates an amendment from the previous version.
- MSDS Regulation** :
- Uses and Restrictions** : Industrial Solvent.
- MSDS Distribution** : The information in this document should be made available to all who may handle the product
- Disclaimer** : This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.